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Infection Control Considerations for the Dental Practice

A Peer-Reviewed Publication
Written by Kristy Menage Bernie, RDH, MS, RYT

Abstract

Optimal infection control practices have been a key aspect of dental professionals' education, but they were not regulated or monitored by outside entities until the late 1980s. Today, infection control protocols and practices are impacted by the Occupational Health and Safety Administration (OSHA),¹ the Centers for Disease Control and Prevention (CDC),² and state licensing boards. Additionally, the World Health Organization (WHO)³ provides resources regarding infection prevention worldwide.

Educational Objectives

The overall goal of this course is to provide the reader with information on entities involved in infection prevention in the dental setting. Upon completion of this course, the reader will be able to:

1. Understand the differences between OSHA, the CDC, and state licensing boards in terms of infection prevention
2. Implement the CDC Guidelines/Summary for Infection Control Practices in Dentistry
3. Adopt the WHO hand hygiene protocol into practice
4. Identify state regulations regarding infection control as they relate to licensure

Author Profile

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Author Disclosure

Kristy Menage Bernie, RDH, MS, RYT has no commercial ties with the sponsors or the providers of the unrestricted educational grant for this course.

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Abstract

Optimal infection control practices have been a key aspect of dental professionals' education, but they were not regulated or monitored by outside entities until the late 1980s. Today, infection control protocols and practices are impacted by the Occupational Health and Safety Administration (OSHA),¹ the Centers for Disease Control and Prevention (CDC),² and state licensing boards. Additionally, the World Health Organization (WHO)³ provides resources regarding infection prevention worldwide.

OSHA: Employee Safety

OSHA's main purpose and focus is that of employee rights to a safe work environment and include general safety considerations within the practice, and specifically the Bloodborne Pathogens Standard,¹ which directly relates to infection control. Additionally, general office safety and chemical safety are aspects of the standard. The standard provides the foundation and template for the dental practice to ensure employees are adequately protected. The main aspects of the standard include establishing an exposure control plan comprised of hepatitis vaccinations for exposed staff, adhering to universal precautions, and maintaining engineering and work practice controls. Handwashing protocols, management of contaminated waste, and use of personal protective equipment (PPE) are examples of engineering and work practice controls. This standard also requires that exposed staff receive annual training, training on updates as issued, and an established protocol for exposure related incidents.

Training must include the following:

- An accessible copy of the regulatory text of this standard and an explanation of its contents
- A general explanation of the epidemiology and symptoms of bloodborne diseases
- An explanation of the modes of transmission of bloodborne pathogens
- An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan

- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials (OPIM)
- An explanation of the use and limitations of methods that will prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment
- Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- Information on the post exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- An explanation of the signs and labels and/or color coding required
- An opportunity for interactive questions and answers with the person conducting the training session
- The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the specific workplace

Some states also have specific OSHA regulations that employers are required to implement, so it is important to determine if these exist in order to ensure practices are in compliance. These standards provide key definitions relating to infection control protocols, and dental practices are required to have a written exposure control plan. A template of an exposure control plan⁴ from OSHA can be downloaded at: <https://www.osha.gov/Publications/osh3186.pdf>.

CDC: Disease Prevention

The focus of the CDC is disease prevention. With respect to dentistry, in 1986⁵ the organization issued Recommended Infection-Control Practices for Dentistry, which were updated in 1993⁶ and most recently in 2003 via the document Guidelines for Infection Control in Dental Health-Care Settings.² The report consolidated previous recommendations and added new ones for infection control in dental settings. Recommended areas of focus include:

1. Educating and protecting dental health-care personnel
2. Preventing transmission of bloodborne pathogens
3. Hand hygiene
4. Personal protective equipment

5. Contact dermatitis and latex hypersensitivity
6. Sterilization and disinfection of patient-care items
7. Environmental infection control
8. Dental unit water lines, biofilm, and water quality
9. Special considerations (e.g., dental handpieces and other devices, radiology, parenteral medications, oral surgical procedures, and dental laboratories)²

The recommendations were developed in collaboration with, and after review by, authorities on infection control from the CDC and other public agencies, academia, and private and professional organizations, and include over 470 references.

In 2016 the CDC released the *Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care*,⁷ which summarizes current infection prevention recommendations and includes a checklist that can be used to evaluate compliance. The summary represents infection prevention expectations for safe care in dental settings. The CDC is clear that this summary is intended for use by anyone needing information about basic infection prevention measures in dental health-care settings, but that it is not a replacement for the more extensive 2003 guidelines. Further, the CDC reminds professionals to consult the full guidelines for additional background, rationale, and scientific evidence behind each recommendation. It can be downloaded at: <https://www.cdc.gov/mmwr/PDF/rr/rr5217.pdf>. Additionally, the CDC has summarized the 2003 guidelines with key recommendations, which can be accessed at: <https://www.cdc.gov/oralhealth/infectioncontrol/pdf/recommendations-excerpt.pdf>

The summary (Figure 1) includes additional topics and information relevant to dental infection prevention and control published by the CDC since 2003 including:

- Infection prevention program administrative measures
- Infection prevention education and training
- Respiratory hygiene and cough etiquette (Figure 2)
- Updated safe injection practices
- Administrative measures for instrument processing

Figure 1: CDC Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care. 2016.

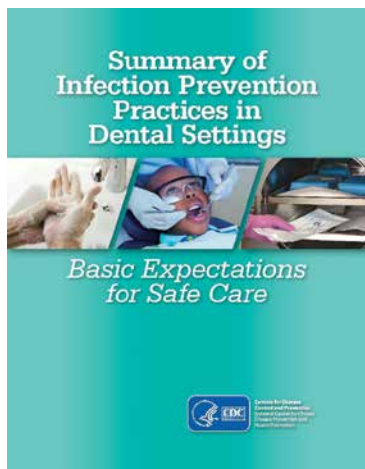


Figure 2: CDC Respiratory Hygiene Recommendations

Key Recommendations for RESPIRATORY HYGIENE / COUGH ETIQUETTE in Dental Settings

1. Implement measures to contain respiratory secretions in patients and accompanying individuals who have signs and symptoms of a respiratory infection, beginning at point of entry to the facility and continuing throughout the visit.
 - a. Post signs at entrances with instructions to patients with symptoms of respiratory infection to —
 - i. Cover their mouths/noses when coughing or sneezing.
 - ii. Use and dispose of tissues.
 - iii. Perform hand hygiene after hands have been in contact with respiratory secretions.
 - b. Provide tissues and no-touch receptacles for disposal of tissues.
 - c. Provide resources for performing hand hygiene in or near waiting areas.
 - d. Offer masks to coughing patients and other symptomatic persons when they enter the dental setting.
 - e. Provide space and encourage persons with symptoms of respiratory infections to sit as far away from others as possible. If available, facilities may wish to place these patients in a separate area while waiting for care.

The objectives of the summary are to:

1. Provide basic infection prevention principles and recommendations for dental health-care settings
2. Reaffirm standard precautions as the foundation for preventing transmission of infectious agents during patient care in all dental health-care settings
3. Provide links to full guidelines and source documents that readers can reference for more detailed background and recommendations

Select CDC recommendations have been included as they may be new to dental professionals. While these recommendations can ensure infection prevention in the dental setting, they are not a substitute for OSHA or state regulations. The full summary can be accessed at: <https://www.cdc.gov/oralhealth/infectioncontrol/pdf/safe-care2.pdf>.

The summary is divided into key fundamentals needed to prevent transmission of infection in dental settings that include recommendations addressing administrative measures; infection prevention education and training; dental health-care personnel (DHCP) safety; program evaluation; standard precautions; and dental unit water quality (Figure 3). DHCP refers to all paid and unpaid personnel in the dental health-care setting who might be occupationally exposed to infectious materials, including body substances and contaminated supplies, equipment, environmental surfaces, water, or air. This includes dentists, dental hygienists, dental assistants, dental laboratory technicians (in-office and commercial), students and trainees, contractual personnel, and other persons not directly involved in patient care but potentially exposed to infectious agents (e.g., administrative, clerical, housekeeping, maintenance, or volunteer personnel).

Figure 3: CDC Dental Unit Water Line Recommendations

Key Recommendations for DENTAL UNIT WATER QUALITY in Dental Settings

1. Use water that meets EPA regulatory standards for drinking water (i.e., ≤ 500 CFU/mL of heterotrophic water bacteria) for routine dental treatment output water.
2. Consult with the dental unit manufacturer for appropriate methods and equipment to maintain the quality of dental water.
3. Follow recommendations for monitoring water quality provided by the manufacturer of the unit or waterline treatment product.
4. Use sterile saline or sterile water as a coolant/irrigant when performing surgical procedures.

Standard precautions are the minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where health care is delivered. These practices are designed to both protect DHCP and prevent DHCP from spreading infections among patients. Standard precautions include:

1. Hand hygiene
2. Use of personal protective equipment
3. Respiratory hygiene/cough etiquette
4. Sharps safety (engineering and work practice controls)
5. Safe injection practices (e.g., aseptic technique for parenteral medications)
6. Sterile instruments and devices (Figure 4)
7. Clean and disinfected environmental surfaces (Figure 5)

Figure 4: CDC Sterilization and Disinfection of Patient-Care Devices

Key Recommendations for STERILIZATION AND DISINFECTION OF PATIENT-CARE DEVICES for Dental Settings

1. Clean and reprocess (disinfect or sterilize) reusable dental equipment appropriately before use on another patient.
2. Clean and reprocess reusable dental equipment according to manufacturer instructions. If the manufacturer does not provide such instructions, the device may not be suitable for multi-patient use.
 - a. Have manufacturer instructions for reprocessing reusable dental instruments/equipment readily available, ideally in or near the reprocessing area.
3. Assign responsibilities for reprocessing of dental equipment to DHCP with appropriate training.
4. Wear appropriate PPE when handling and reprocessing contaminated patient equipment.
5. Use mechanical, chemical, and biological monitors according to manufacturer instructions to ensure the effectiveness of the sterilization process. Maintain sterilization records in accordance with state and local regulations.

Figure 5: CDC Environmental Infection Prevention Recommendations

Key Recommendations for ENVIRONMENTAL INFECTION PREVENTION AND CONTROL in Dental Settings

1. Establish policies and procedures for routine cleaning and disinfection of environmental surfaces in dental health care settings.
 - a. Use surface barriers to protect clinical contact surfaces, particularly those that are difficult to clean (e.g., switches on dental chairs, computer equipment) and change surface barriers between patients.
 - b. Clean and disinfect clinical contact surfaces that are not barrier-protected with an EPA-registered hospital disinfectant after each patient. Use an intermediate-level disinfectant (i.e., tuberculocidal claim) if visibly contaminated with blood.
2. Select EPA-registered disinfectants or detergents/disinfectants with label claims for use in health care settings.
3. Follow manufacturer instructions for use of cleaners and EPA-registered disinfectants (e.g., amount, dilution, contact time, safe use, disposal).

The 2016 summary provides dental professionals access to simplified approaches to infection control practices and includes the *Infection Prevention Checklist for Dental Settings: Basic Expectations for Safe Care*,⁸ a companion document to the summary. The checklist is designed to:

1. Ensure the dental health-care setting has appropriate infection prevention policies and practices in place, including appropriate training and education of DHCP on infection prevention practices, and adequate supplies to allow DHCP to provide safe care and a safe working environment.
2. Systematically assess personnel compliance with the expected infection prevention practices and to provide feedback to DHCP regarding performance. Assessment of compliance should be conducted by direct observation of DHCP during the performance of their duties.

The checklist is available in a fillable format to facilitate evaluation. It provides a template for annual review and assessment. Elements to be assessed are divided into two sections: Policies and Practices and Direct Observation of Personnel and Patient-Care Practices.

Section I: Policies and Practices include the following elements to be assessed:

- I.1 Administrative Measures – Written infection control policies and practices; annual review; designated infection control coordinator; availability of supplies to ensure adherence to standard precautions; and detection and management protocol for potentially infectious patients.
- I.2 Infection Prevention Education and Training – Training protocols and practices and maintenance of training records in accordance with state and federal requirements.
- I.3 Dental Health-Care Personnel Safety – Written exposure control plan; training of exposed employees on OSHA

Bloodborne Pathogens Standard and immunization policies/record keeping; sharps incident reports; and exposure response systems and protocols.

- I.4 Program Evaluation – Availability of written protocols/practices and monitoring/feedback protocols for adherence to safe practices.
- I.5 Hand Hygiene – Availability of appropriate hand hygiene supplies and training on hand hygiene protocols/practices.
- I.6 Personal Protective Equipment – Availability of appropriate PPE and training on use and proper selection of PPE.
- I.7 Respiratory Hygiene/Cough Etiquette – Policies and procedures to contain respiratory secretions and related training.
- I.8 Sharps Safety – Written policies, procedures, and guidelines for exposure prevention and post-exposure management are available; DHCP use/selection/identification of sharps safety devices.
- I.9 Safe Injection Practices – Written policies and practices for safe injection and use of aseptic techniques in preparation for injections.
- I.10 Sterilization and Disinfection of Patient-Care Items and Devices – Written policies and procedures are available to ensure reusable patient care instruments and devices are cleaned and reprocessed appropriately before use on another patient; policies, procedures, and manufacturer reprocessing instructions for reusable instruments and dental devices are available, ideally in or near the reprocessing areas; appropriate training of DHCP processing patient care instruments; training and equipment availability for use of PPE for processing; routine maintenance for sterilization equipment and maintenance of policies and procedures to take in the event of reprocessing error or failure.
- I.11 Environmental Infection Prevention and Control – Written policies and procedures are available for routine cleaning and disinfection of environmental surfaces; DHCP training on management/cleaning of environmental surfaces; training and equipment available to DHCP; monitoring of practices and protocols; and decontamination procedures for spill management of blood or other body fluids.
- I.12 Dental Unit Water Quality – Policies and procedures are in place for maintaining dental unit water quality that meets Environmental Protection Agency (EPA) regulatory standards for drinking water; policies and procedures are in place for using sterile water as a coolant/irrigant when performing surgical procedures, and written policies and procedures are available outlining response to a community boil-water advisory.

Section II: Direct Observation of Personnel and Patient-Care Practices includes the following elements to be assessed:

- II.1 Hand Hygiene Is Performed Correctly – When hands are visibly soiled; after bare-handed touching of contaminated surfaces/instruments; before/after each patient; before donning gloves; immediately after removing gloves; and use

of surgical hand scrub before donning gloves for surgical procedures.

- II.2 Personal Protective Equipment (PPE) Is Used Correctly – Gloves are worn when potential contact with blood, body fluids, mucous membranes, nonintact skin, or contaminated equipment; changed between patients; not washed or reused; puncture- and chemical-resistant gloves are worn when cleaning instruments and performing housekeeping tasks involving contact with blood or OPIM; use of sterile surgeon's gloves for all surgical procedures; and removal of gloves that are torn, cut, or punctured with hand hygiene performed prior to putting on new gloves. Protective clothing covers personal clothing and skin likely to be soiled with blood, saliva, or OPIM, and must be changed as soon as possible if visibly soiled or if penetrated by blood or other potentially infectious fluids.
- II.3 Respiratory Hygiene/Cough Etiquette – Elements to be assessed in Figure 2.
- II.4 Sharps Safety – Overviews specifics relating to sharps safety, use, and protocols, including one-handed recapping protocol and appropriate disposal.
- II.5 Safe Injection Practices – Assesses safe practices related to multidose vials utilization and fluid infusion and administration practices.
- II.6 Sterilization and Disinfection of Patient-Care Items and Devices – Evaluates specifics related to processing of reusable items; management of disposables; use of protective equipment (puncture and chemical-resistant utility gloves); use of automated cleaning equipment; labeling of sterilization bags; monitoring of sterilization equipment; handpiece management, and digital radiography asepsis practices.
- II.7 Environmental Infection Prevention and Control – Overviews practices related to contaminated surface management, contaminated waste processing, barrier use protocols, and appropriate use of PPE (can include gloves, gowns, masks, and eye protection).
- II.8 Dental Unit Water Quality – Evaluates dental unit water quality control practices and protocols including use of sterile saline/water for surgical procedures.

To manage the CDC recommendations, in addition to a fillable checklist available for download, the CDC has released a new app called the CDC DentalCheck, which is developed directly from the Infection Prevention Checklist for Dental Settings.^{9, 10} This app (Figure 6) will provide users the opportunity to periodically assess practices in their facility and ensure they are meeting the minimum expectations for safe care. The infection prevention coordinator and other staff trained in infection prevention are encouraged to use this app at least annually to assess the status of their administrative policies and practices, and also engage in direct observation of personnel and patient-care practices. Key features include the following:

- Check yes/no to acknowledge compliance with a list of administrative policies or observed practices

- Summary of basic infection prevention principles and recommendations for dental health-care settings
- Ability to export results for records management
- Links to full guidelines and source documents that users can reference for more detailed background and recommendations

Figure 6: CDC DentalCheck app available for download



It is important to note that the CDC documents and checklists are guidelines and not considered mandatory; however, many states have now implemented infection control regulations that are based on these guidelines. Regardless, following the CDC recommendations will ensure safe practices and disease prevention for both dental personnel and patients.

State Regulations: Consumer Safety

State boards regulate the dental profession and are in place to ensure consumer safety and well-being. They are tasked with overseeing the licensing process, the practice parameters, and addressing consumer (patient) complaints and/or licensure issues. Many states have incorporated some version of infection control regulations into statute or practice acts,¹¹ which may include specific requirements such as mandatory continuing education on the topic of infection control or inspections of new dental practices to ensure infection control protocols are in place.¹² It is important that dental professionals be aware of their specific state mandates and follow them carefully.

Failure to comply with state regulations could result in action against a license to practice and typically relate to all members of the dental team, including the dentist, dental hygienist, and dental assistant. State boards have utilized both OSHA and the CDC in the development of regulations, and while there may be overlap or similarities, they are not the same. For states that require infection control continuing education as a condition for license renewal, be sure to confirm the details related to content, providers of the continuing education, and any other state-specific requirements, including hours to be completed.

Mandated infection-control continuing education is not the same as OSHA required training/education, so it is important to understand the difference and maintain training records accordingly. Be sure to review state board infection control regulations to determine specific requirements and include these in the infection control protocols and practices. Some states require that infection control regulation be posted as well. While state mandates will protect the dental professional, their main goal is consumer safety.

Additional Infection Control Resources

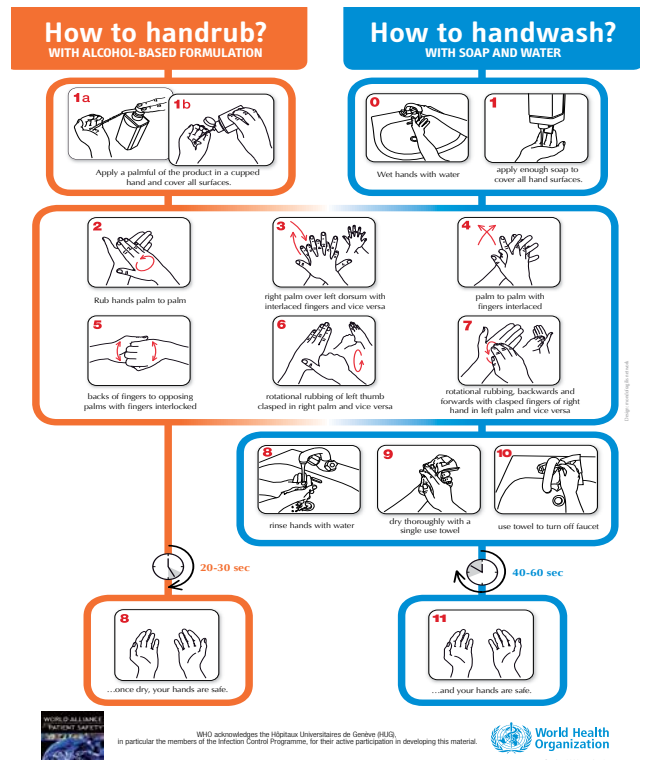
Additional infection control resources include professional organizations including the American Dental Association (ADA),¹³ the American Dental Hygienists' Association (ADHA), the World Health Organization (WHO), and the Organization for Safety, Asepsis and Prevention (OSAP). The ADA and ADHA offer member support and resources to assist in meeting requirements associated with infection control. Additionally, they monitor state regulations and provide a national overview of statutes, infection control continuing education,¹⁴ and compliance tools. The WHO is an excellent resource for internationally accepted practices for hand hygiene.

Hand hygiene is the cornerstone for infection prevention, and in 2006 the WHO issued standardization for hand hygiene practices/methods. The *WHO Guidelines on Hand Hygiene in Health Care* support hand hygiene promotion and improvement in health-care facilities worldwide.¹⁵ These practices are now being taught in entry level dental professional curricula but may be new for those currently practicing. The WHO recommends hand hygiene³ in five specific situations:

1. Before patient contact
2. Before an aseptic task
3. After body fluid exposure risk
4. After patient contact
5. After contact with patient surroundings

Additionally, the WHO offers hand hygiene protocols for both handwashing and use of alcohol hand rubs (Figure 7). These protocols should be incorporated into infection control practices.

Figure 7: WHO Hand Hygiene Protocols



Providing updates to infection control practices is an important aspect of maintaining health and safety. OSAP was founded in 1984 and “represents a growing community of clinicians, educators, researchers, and industry representatives who advocate for safe and infection-free delivery of oral health care. OSAP focuses on strategies to improve compliance with safe practices and on building a strong network of recognized infection control experts. OSAP offers an extensive online collection of resources, publications, FAQs, checklists, and toolkits that help dental professionals deliver the safest dental visit possible for their patients.”^{16,17} These resources offer methods and tools to ensure the dental team is up to date on the latest information regarding infection control practices and protocols. For example, the OSAP bimonthly newsletter could be used as a training tool by having staff review each issue and discuss them at staff meetings. Joining OSAP will assist practices in staying connected in an ever-changing world of infection prevention.

Infection Prevention in Dentistry

The main agencies/entities impacting infection control practices and protocols in dentistry include OSHA, the CDC, and state licensing boards. Overall, the main focus is infection prevention and safety for dental professionals and patients alike.¹⁸ Understanding the differences between these entities is important in implementing guidelines and mandates. The checklist in Table 1 will assist dental practices in developing and maintaining safe and healthy practices and protocols.

Conclusion

Together, the entities mentioned above provide the foundation for sound infection control practices that will protect both dental professionals as well as dental patients. Understanding what each brings to infection prevention is important for every member of the dental team. Defining the roles of each entity/agency will provide dental practices with methods to develop and maintain optimal infection control protocols and practices and for dental clinicians to meet mandatory licensing requirements.

Infection Prevention Checklist

- Assign practice infection control coordinator
- Develop and maintain an OSHA exposure control plan
- Provide training upon initial employment, annually, and when updates occur
- Confirm state infection control regulations via state board/meet or exceed required infection control continuing education requirements
- Utilize the CDC checklist/app to assess infection control practices and protocols
- Incorporate WHO hand hygiene protocols into practice
- Annually review infection control practices/protocols and update as needed
- Join OSAP: Utilize resources for staff training and updates

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Questions

1. Which entity regulates employee safety in relation to infection control?
 - a. CDC
 - b. OSHA
 - c. State dental boards
 - d. All of the above
2. Which entity provides evidence-based guidelines for infection prevention in the dental setting?
 - a. CDC
 - b. OSAP
 - c. OSHA
 - d. State dental boards
3. Which entity oversees licensure and is concerned with consumer safety?
 - a. CDC
 - b. OSAP
 - c. OSHA
 - d. State dental boards
4. OSHA requires annual training in all of the following areas except:
 - a. Bloodborne pathogens
 - b. Chemical safety
 - c. Respiratory infection prevention
 - d. General office safety
5. OSHA training applies to all dental personnel exposed to blood or saliva, either directly or indirectly, and must also:
 - a. Be interactive with the opportunity to ask questions
 - b. Be facilitated by an individual with sufficient knowledge
 - c. Include an explanation of the procedure to follow if an exposure incident occurs
 - d. All of the above
6. According to OSHA, handwashing protocols, management of contaminated waste, and use of personal protective equipment are examples of:
 - a. An exposure control plan
 - b. Adhering to universal precautions
 - c. Engineering and work practice controls
 - d. None of the above
7. Which entity specifically addresses dental unit water line quality?
 - a. CDC
 - b. OSHA
 - c. State dental boards
 - d. WHO
8. According to the CDC, which of the following defines minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where health care is delivered?
 - a. Engineering controls
 - b. Universal precautions
 - c. Standard precautions
 - d. None of the above
9. Standard precautions include all but which of the following?
 - a. Hand hygiene
 - b. Chemical safety
 - c. Respiratory hygiene/cough etiquette
 - d. Sharps safety
10. Which entity has issued respiratory hygiene recommendations?
 - a. CDC
 - b. OSAP
 - c. OSHA
 - d. State dental boards
11. Posted signs for respiratory hygiene should include which of the following?
 - a. Cover mouths/noses when coughing or sneezing
 - b. Use and dispose of tissues
 - c. Perform hand hygiene after hands have been in contact with respiratory secretions
 - d. All of the above
12. The objectives of the 2016 CDC Summary include which of the following?
 - a. Update training on chemical safety
 - b. Provide basic infection prevention principles and recommendations
 - c. Review of bloodborne pathogens and associated infections
 - d. Assist professionals in meeting continuing education requirements
13. Key recommendations for dental unit water lines include which of the following?
 - a. Dental unit water must exceed EPA standards for drinking water
 - b. Flush water lines at the beginning of the day and in between patients
 - c. Use sterile saline or sterile water as a coolant/irrigant when performing surgical procedures
 - d. Use bleach to flush and clean lines on a weekly basis
14. Dental unit water quality should not exceed which of the following CFU/mL of heterotrophic water bacteria for routine procedures?
 - a. ≥ 500
 - b. ≥ 700
 - c. ≥ 800
 - d. ≥ 900
15. According to the CDC, DHCP include all but which of the following?
 - a. All clinical personnel
 - b. Administrative personnel
 - c. Contractual personnel
 - d. All of the above are considered DHCP
16. Key recommendations from the CDC for contaminated surface management include which of the following?
 - a. Cleaned and disinfected only when visibly contaminated with blood
 - b. Clean and disinfect after each patient
 - c. Use of barriers on surfaces that can be easily cleaned and disinfected
 - d. Replacement of barriers when visibly contaminated
17. The CDC Checklist includes evaluation of which of the following policies and practices?
 - a. Correct use of personal protective equipment
 - b. Sharps safety, use, and protocols, including appropriate disposal
 - c. Training of exposed employees on OSHA Bloodborne Pathogen Standard
 - d. Hand hygiene performed correctly
18. When cleaning instruments and performing housekeeping tasks involving contact with blood or saliva, which of the following should be worn?
 - a. Examination gloves
 - b. Surgical gloves
 - c. Chemical-resistant gloves
 - d. Any of the above
19. The CDC Checklist includes evaluation of which of the following direct observation of personnel and patient-care practices?
 - a. Availability of appropriate PPE and training on use and proper selection
 - b. Gloves are changed between patients and not washed or reused
 - c. Written policies and procedures are available for routine cleaning and disinfection of environmental surfaces
 - d. Training protocols and practices and maintenance of training records in accordance with state and federal requirements
20. Which entity stipulates that the hepatitis B vaccination is provided free of charge to exposed employees?
 - a. CDC
 - b. OSAP
 - c. OSHA
 - d. WHO

Questions

21. Which entity mandates annual training for exposed employees?
- CDC
 - OSHA
 - State boards
 - WHO
22. Which entity has developed specific hand hygiene protocols?
- ADA
 - CDC
 - OSAP
 - WHO
23. Using the proper protocol, how long should handwashing take?
- 10 – 30 seconds
 - 20 – 30 seconds
 - 40 – 60 seconds
 - 60 – 90 seconds
24. Using the proper protocol, how long should hand hygiene using an alcohol rub take?
- 10 – 30 seconds
 - 20 – 30 seconds
 - 40 – 60 seconds
 - 60 – 90 seconds
25. Who would typically generate a complaint to OSHA?
- A patient
 - A practice partner
 - An employee
 - Any of the above
26. In states that have infection control regulations, whose complaint regarding infection control issues is a primary concern?
- A patient
 - A practice partner
 - An employee
 - Any of the above
27. The Organization for Safety, Asepsis and Prevention (OSAP):
- Is an organization of clinicians, educators, researchers, and industry representatives
 - Advocates for safe and infection-free delivery of oral health care
 - Focuses on strategies to improve compliance with safe practices and on building a strong network of recognized infection control experts
 - All of the above
28. States with infection control regulations may require which of the following?
- Continuing education regarding infection control
 - Initial infection control inspection of new dental practices
 - A and B
 - None of the above
29. The CDC recommends utilizing the checklist to assess elements of infection prevention:
- Every 6 months
 - Annually
 - When updates occur
 - Every 2 years
30. Implementing the CDC Guidelines/Checklist will provide all but which of the following?
- Meet OSHA mandates and requirements
 - Provide evidence-based protocols for infection prevention
 - Ensure the dental health-care setting has appropriate infection prevention policies and practices in place
 - Systematically assess personnel compliance and provide feedback to DHCP regarding performance

Notes

Infection Control Considerations for the Dental Practice

Name: _____ Title: _____ Specialty: _____

Address: _____ E-mail: _____

City: _____ State: _____ ZIP: _____ Country: _____

Telephone: Home (_____) Office (_____)

Lic. Renewal Date: _____ AGD Member ID: _____

Requirements for successful completion of the course and to obtain dental continuing education credits: 1) Read the entire course. 2) Complete all information above. 3) Complete answer sheets in either pen or pencil. 4) Mark only one answer for each question. 5) A score of 70% on this test will earn you 3 CE credits. 6) Complete the Course Evaluation below. 7) Make check payable to PennWell Corp. **For Questions Call 800-633-1681**

Educational Objectives

- Understand the differences between OSHA, the CDC, and state licensing boards in terms of infection prevention
- Implement the CDC Guidelines/Summary for Infection Control Practices in Dentistry
- Adopt the WHO hand hygiene protocol into practice
- Identify state regulations regarding infection control as they relate to licensure

Course Evaluation

1. Were the individual course objectives met?

Objective #1: Yes No Objective #2: Yes No

Objective #3: Yes No Objective #4: Yes No

Please evaluate this course by responding to the following statements, using a scale of Excellent = 5 to Poor = 0.

- | | | | | | | |
|--|---|---|---|---|-----|----|
| 2. To what extent were the course objectives accomplished overall? | 5 | 4 | 3 | 2 | 1 | 0 |
| 3. Please rate your personal mastery of the course objectives. | 5 | 4 | 3 | 2 | 1 | 0 |
| 4. How would you rate the objectives and educational methods? | 5 | 4 | 3 | 2 | 1 | 0 |
| 5. How do you rate the author's grasp of the topic? | 5 | 4 | 3 | 2 | 1 | 0 |
| 6. Please rate the instructor's effectiveness. | 5 | 4 | 3 | 2 | 1 | 0 |
| 7. Was the overall administration of the course effective? | 5 | 4 | 3 | 2 | 1 | 0 |
| 8. Please rate the usefulness and clinical applicability of this course. | 5 | 4 | 3 | 2 | 1 | 0 |
| 9. Please rate the usefulness of the supplemental bibliography. | 5 | 4 | 3 | 2 | 1 | 0 |
| 10. Do you feel that the references were adequate? | | | | | Yes | No |
| 11. Would you participate in a similar program on a different topic? | | | | | Yes | No |

12. If any of the continuing education questions were unclear or ambiguous, please list them.

13. Was there any subject matter you found confusing? Please describe.

14. How long did it take you to complete this course?

15. What additional continuing dental education topics would you like to see?

If not taking online, mail completed answer sheet to
PennWell Corp.
Attn: Dental Division,
1421 S. Sheridan Rd., Tulsa, OK, 74112
or fax to: 918-212-9037

**For IMMEDIATE results,
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| 1. (A) (B) (C) (D) | 16. (A) (B) (C) (D) |
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| 3. (A) (B) (C) (D) | 18. (A) (B) (C) (D) |
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| 8. (A) (B) (C) (D) | 23. (A) (B) (C) (D) |
| 9. (A) (B) (C) (D) | 24. (A) (B) (C) (D) |
| 10. (A) (B) (C) (D) | 25. (A) (B) (C) (D) |
| 11. (A) (B) (C) (D) | 26. (A) (B) (C) (D) |
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| 13. (A) (B) (C) (D) | 28. (A) (B) (C) (D) |
| 14. (A) (B) (C) (D) | 29. (A) (B) (C) (D) |
| 15. (A) (B) (C) (D) | 30. (A) (B) (C) (D) |

AGD Code 148

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